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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,318	08/22/2003	Ronald L. Mahany	14366US02	9697

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EXAMINER

MAI, THIEN T

ART UNIT PAPER NUMBER

2876

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/646,318	KOENCK ET AL.	
	Examiner	Art Unit	
	Thien T. Mai	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ✓ 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ✓ 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

1. The Specification filed with the Preliminary Amendment on 8/22/2003 has been considered. The Examiner is respectfully taking into consideration all the claims presented.

Oath/Declaration

2. The Oath/Declaration filed on 10/20/2004 by applicants has been considered.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because submitted drawings do not reflect changes per Amendment filed on August 22nd 2003. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

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A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Priority

4. The Office hereby acknowledges the benefit claim under 35 U.S.C. 120 by applicant. Priority benefit is granted based on the following Continuity Information:

The presenting application 10/646318 has
effective date of 07/07/1995 from parent application 08/478488, which has
effective date of 12/20/1994 from parent application 08/360014, which has
effective date of 01/07/1992 from parent application 07/777393, which has
no further effective date from parent application 07/364902 due to its date of abandonment date of 8/12/1991. In order to receive priority benefit under 35 USC 120, the application date of a child application must be **before** the abandonment date of parent application. However, in this case, the child application 07/777393 has date of 01/07/1992 which is after the abandonment date of 8/12/1991 from parent application 07/364902.

Conclusively, the effective date for the presenting application is 01/07/1992.

Double Patenting

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5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim(s) 56, 60, 65 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 77, 93-96, 105-109 of U.S. Patent No. 5,410,141, referred to as Patent '141. Although the conflicting claims are not identical, they are not patentably distinct from each other because they essentially reciting the same limitations of the claims.

Claim 56 is rejected in view of claim 105 of Patent '141 in that claim 105 of the patent recites:

- a data processing terminal (see base claim 91)
- a wireless communication module (see claim 105) which inherently implies the use of an antenna
- a connector means (see claim 105)

Claim 60 is rejected in view of claim 105 of Patent '141 in that claim 105 of the patent recites:

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- A portable data processing terminal of size and weight carryable by a user (see base claim 91)
- a wireless communication module (see claim 105) which inherently implies the use of an antenna
- a connector means (see claim 105) to releasably engage the wireless communications module with the data processing terminal
- the data processing terminal is arranged to standardize logic levels of the coupled signals transmitted over the connector such that the data collection is engaged by the communications module through the connector without adjustment of the communications module or the data processing terminal (see claim 105)

Claim 65 is rejected in view of claim 105 of Patent '141 in that claim 105 of the patent recites:

- A portable data processing terminal of size and weight carryable by a user (see base claim 91)
- a wireless communication module (see claim 105) which inherently implies the use of an antenna
- a connector means (see claim 105) to engage the wireless communications module with the data processing terminal
- a housing means (see base claim 91) to receive plurality of integratable modules inherently including the wireless communication module which together with the portable terminal inherently imply having size and weight to be maneuverable with only one hand of a user
- the data processing terminal is arranged to standardize logic levels of the coupled signals transmitted over the connector such that the data collection is engaged by the communications module through the connector without adjustment of the communications module or the data processing terminal (see claim 105)

As can be seen, the patent protections have been granted to the earlier filed application.

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7. Claim(s) 57-58, 61-62, and 66-67 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 105 of U.S. Patent No. 5410141 in view of Nishikawa (5166693) and Matzuk (3964296).

Regarding claims 57, 61, and 66 Patent '141 recites all limitations set forth in this claim as discussed above except the antenna being flat. Nishikawa discloses flat antenna is known in the art especially in the mobile communications systems where antenna elements are printed on a substrate. (See Abstract, Col 3 lines 1-7.)

Regarding claims 58, 62, and 67, Patent '141 and Nishikawa recite all limitations set forth in this claim as discussed above except that at least one antenna comprises a pair of flat antennas. Matzuk discloses the concept of implementing the antenna pair is known in the art. (Col 38 lines 50-55.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the Patent '141 with the inventions of Nishikawa for claims 57, 61, 66 and of Matzuk for claims 58, 62, 67 to achieve smaller size and weight over conventional antennas for embedment in hand-held and portable devices.

8. Claim(s) 59 and 63 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 105 of U.S. Patent No. 5410141 in view of Hahmann (3247514).

Regarding claims 59 and 63, Patent '141 cites all limitations in this claim as discussed above except for at least one antenna comprises two antennas having different structures relative to each other. Hahmann discloses the use of dual antenna structure in a scanner having different polarizations at different angles. (Col 4 lines 29-32.) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the Patent '141 and the dual antenna structure of Hahmann for reliability and better accuracy achievement through redundancy.

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9. Claim(s) 64 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 105 of U.S. Patent No. 5410141 in view of Winebaum (4817135).

Regarding claim 64, Patent '141 cites all limitations in this claim as discussed above except for the switch through which the communications module receive the power from the data processing terminal and the conservation of energy of the data processing responsive to inactivity of the communications module.

Winebaum discloses the energy conservation method through the following text: "switch 26 connects battery 22 to chip 20 in order to conserve battery power during periods when the chip is not operating, and the routine shown in FIG. 4 is executed whenever power is applied to the chip. However, it is also possible to have chip 20 connected at all times to battery 22 and connect switch 26 to a reset pin on the chip (since the Hitachi HD61827 or similar may draw as little as 2 microamps while operating in the "stop" or "sleep" mode)." (Col 5 lines 67-68, Col 6 lines 1-7.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the Patent '141 and the method for energy conservation through a switch such as of Winebaum for conserving battery power therefore increase the battery life.

10. Claim(s) 69 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 105 of U.S. Patent No. 5,410,141 in view of May (5043721).

Regarding claim 69, Patent '141 recites all limitations in this claim as discussed above except for the communication module being flat rectangular shape. May shows a module (10), through Figures 1 and 2, that convincingly appears to have a flat rectangular shape and comprises an RF antenna embedded inside the transceiver module that is removable from a portable computer by a single hand. It would have been obvious to one of ordinary skill in the art at the time of invention to combine Patent '141 and the

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invention of May for the ease of manufacturing especially in flat rectangular objects in portable computing devices and for the ease of insertion into a portable device.

11. Claim(s) 70, 71, and 72 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 105 of U.S. Patent No. 5,410,141 in view of May (5043721), Nishikawa (5166693) and Matzuk (3964296) and Hahmann (3247514).

Regarding claim 70, Nishikawa discloses flat antenna is known in the art especially in the mobile communication systems where antenna elements are printed on a substrate. (See Abstract, Col 3 lines 1-7.)

Regarding claim 71, Matzuk discloses the antenna pair set forth in the claim limitation is known in the art. (Col 38 lines 50-55.)

Regarding claims 72, Hahmann discloses the use of dual antenna structure in a scanner having different polarizations, implying different structures, at different angles (Col 4 lines 29-32.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to implement the inventions of May, Matzuk, Nishikawa and Hahmann in the Patent '141 to size down the inner components in a portable apparatus, reliability, and to better manage the reception/transmission of the signals through the use of the antenna having different structures.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien T. Mai whose telephone number is 571-272-8283. The examiner can normally be reached on Monday through Friday, 8:00 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thien T Mai
Examiner
Art Unit 2876

June 30, 2005



THIEN M. LE
PRIMARY EXAMINER

June 28, 2005

RE. DECISION ON PETITION UNDER 37 CFR 1.47(A)

The petition filed under 37 CFR 1.47(a) on April 25, 2005 has been GRANTED.

Accordingly, the inventors of this instant invention will be listed as follows:

Ronald L. Mahany, Stephen J. Kelly

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien M. Le whose telephone number is (571) 272-2396. The examiner can normally be reached on Monday - Friday from 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Le, Thien Minh
Primary Examiner
Art Unit 2876**